



**MILES BERRY** PRINCIPAL LECTURER

# VALUES?

What's the place of ethics in our work as computing or digital making educators?  
How can we help our students to help others?

**A** few things have left me pondering the place of values and ethics in computing education and digital making.

The Children's Commissioner recently published a report on children's online rights. I was asked, when presenting on the English national curriculum in Hanoi, why we didn't mention values, as they had in the framework they're currently drafting.

Back home, the European Parliament produced a draft report on the ethical principles that should underpin the development and design of robots.

As a community of digital educators, what are our shared values? What are the overarching aims or principles of what we're trying to do in computing education or digital making?

The English computing curriculum starts with this ambitious vision:

*A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world.*

Understanding the world is an enlightenment value: it assumes the world is a knowable thing, and that curiosity about it is good. We might, then, see the need for free access to knowledge, free participation in debate, and freedom to experiment as part of the learning process. 'Changing the world' is ambitious, but I worry that we leave implicit the idea of changing it **for the better**. The English computing curriculum emphasises the need for pupils to stay safe and act responsibly, but shouldn't we also consider the ethical use of technologies to improve the lives of others, and the ethical assumptions of the algorithms behind the services we rely on?

The new US K12 CS Framework goes further, emphasising an inclusive culture as a guiding principle and the need to teach the impacts of computing:

*An informed and responsible person should understand the social implications of the digital world, including equity and access to computing.*

The Raspberry Pi Foundation has a clear mission statement:

*To put the power of digital making into the hands of people all over the world, so they are capable of understanding and shaping our increasingly digital world, able to solve the problems that matter to them, and equipped for the jobs of the future.*

It's impressive to see the founders' values in firstly making low-cost, general-purpose computers available to all and, secondly, prioritising education as a shared goal. Other similar projects share a sense of positive change through technology, like Apps for Good. Those involved learn skills and develop understanding, but they also make apps that have a societal benefit: a moral purpose.

I suspect that character, values, and ethics in education are better learnt through example than worksheet; We must bring these more to the surface in what we do: thinking about the why, as well as the what and the how of the things our students learn and make. **(HW)**

**Miles Berry** is principal lecturer in computing education at the University of Roehampton. He helped draft the English computing curriculum and is a member of the Raspberry Pi Foundation.